Document Log Item

Addressing			
From		**To**	
Claire Trombadore/R9/USEPA/US		Christine Katin/R9/USEPA/US@EPA	
CC		**BCC**	
Robert Terry/R9/USEPA/US@EPA			
Description			Form Used: Reply
Subject		**Date/Time**	
Re: RAD - Jurisdiction over reoccupancy of buildings		01/28/2008 09:56 AM	
# of Attachments	**Total Bytes**	**NPM**	**Contributor**
0	25,596		
Processing			
Comments			

Body

Document Body

(b) (5)

[redacted]

Christine Katin/R9/USEPA/US

01/28/2008 09:46 AM

To Claire Trombadore/R9/USEPA/US@EPA
cc
Subject RAD - Jurisdication over reoccupancy of buildings

Hi Claire-

If you recall, I mentioned RAD issues at TI during one of our meetings. Kurt Jackson made a comment during a BCT meeting that he did not have jurisdiction with respect to declaring buildings safe for reoccupancy. The email traffic below between Kurt and the DTSC RPM states that as the lease is controlled by the feds, DTSC does not have jurisdiction - the decision to reoccupy is overseen by EPA and/or the NRC. Reoccupation is scheduled for the end of Feb. Is he correct? (I marked the relevant text in red)

Robert Terry has been helpful, but he is out and all were reluctant to reschedule the conference call. I am going to follow up with him later this week.

Thanks, Christine

----- Forwarded by Christine Katin/R9/USEPA/US on 01/28/2008 09:41 AM -----

"Ryan Miya" <RMiya@dtsc.ca.gov>

01/23/2008 11:58 AM

To "Henry Wong" <HWong@dtsc.ca.gov>, <gfoote@geomatrix.com>, <ylee@jsco.net>, <charles.L.perry@navy.mil>, "James B CIV OASN (I&E) BRAC PMO West Sullivan" <james.b.sullivan2@navy.mil>, <james.h.whitcomb@navy.mil>, <jack.sylvan@sfgov.org>, <michael.tymoff@sfgov.org>
cc "Kurt (CDPH-DDWEM) Jackson" <Kurt.Jackson@cdph.ca.gov>, "Daniel Murphy" <DMurphy1@dtsc.ca.gov>, "Tony Landis " <TLandis@dtsc.ca.gov>, Christine Katin/R9/USEPA/US@EPA, <Peter.Bourgeois@shawgrp.com>, "Marcie Rash" <Marcie.Rash@ttemi.com>, <afarres@waterboards.ca.gov>
Subject Conference call to discuss NSTI Site 12

Hello,
DTSC has been consulting with the California Department of Public Health (CDPH) concerning radiological issues related to residential re-occupancy and transfer of Naval Station Treasure Island (NSTI) Site 12. We would like to convey the State of California's thoughts regarding these matters with you as soon as possible.

I propose that we convene for a conference call for this on Friday January 25 from 11am to 12pm. Please let me know if this is amenable to your schedules. Jim S., could you please setup a conference call number that we can all call into once we have settled on a time? That would be greatly appreciated.

I have attached two e-mails received from CDPH for your information and review prior to the call. CDPH response is presented first followed by my initial e-mail beneath that (chronologically presented from the bottom up).

Thank you for your immediate attention to this matter.

Sincerely,
Ryan Miya

Ryan Miya
Senior Hazardous Substances Scientist
DTSC, Office of Military Facilities
Northern California Operations Branch
700 Heinz Avenue
Berkeley, CA 94710-2721
Phone: 510-540-3775
FAX: 510-540-3819

----- Message from "Jackson, Kurt (CDPH-DDWEM)" <Kurt.Jackson@cdph.ca.gov> on Tue, 22 Jan 2008 17:37:58 -0800 -----

To: "Ryan Miya" <RMiya@dtsc.ca.gov>

cc: "Dement, Deirdre (CDPH-DDWEM)" <Deirdre.Dement@cdph.ca.gov>, "Leinwander, Penny (CDPH-EMB)" <Penny.Leinwander@cdph.ca.gov>, "Pilorin, Ronald (CDPH-DDWEM)" <Ronald.Pilorin@cdph.ca.gov>, "Daniel Murphy" <DMurphy1@dtsc.ca.gov>, "Henry Wong" <HWong@dtsc.ca.gov>, "Tony Landis " <TLandis@dtsc.ca.gov>

Subject: RE: Additional info regarding re-occupancy at Naval StationTreasure Island (NSTI) Site 12

Thanks Ryan. The preliminary data report did not include any data from control samples or how the measurement system was calibrated. It did provide field duplicate samples, but all results were less than the laboratory's method detection limit. As suggested in my previous comments on the field sampling plan, information about calibration of the analysis system should be included in the final report or FSP. I would suggest not drawing conclusions from the data until there was more
information provided about how the laboratory calibrated the system and
determined the laboratory method detection limit.

-----Original Message-----
From: Ryan Miya [mailto:RMiya@dtsc.ca.gov]
Sent: Tuesday, January 22, 2008 2:41 PM
To: Jackson, Kurt (CDPH-DDWEM)
Cc: Dement, Deirdre (CDPH-DDWEM); Leinwander, Penny (CDPH-EMB); Pilorin,
Ronald (CDPH-DDWEM); Daniel Murphy; Henry Wong; Tony Landis
Subject: Additional info regarding re-occupancy at Naval StationTreasure
Island (NSTI) Site 12

Kurt,
Attached please find preliminary data, currently under going final QA/QC, from the Ra-226 testing performed in many of the unoccupied units
using activated charcoal radon test kits. All of the test kit results, including duplicates, were non-detect with a detection limit of 0.3 pCi/L. The table includes both the results from the test kits and the

static radiological reading from the floor prior to placing the kit. The procedures used for taking the static reading of the floor and the placement and locations of the radon sampling kits are described in the
sampling and analysis plans text, tables, and figures.

It is currently our understanding that the leasing agency would like to
start making new lease arrangements with tenants who will be re-occupying the vacated units next week for folks to begin moving in by
the end of February. As a result, I am hoping that you will be able to provide CDPH's response by COB on Thursday 1/24/08. If this timeframe is not possible, please suggest an amenable response date so that we may
be able to provide the Navy and the City of San Francisco with the State
of California's position in a timely manner. Thank you once again for your invaluable technical assistance.

Sincerely,
Ryan Miya, Ph.D.

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----- Message from "Jackson, Kurt (CDPH-DDWEM)" <Kurt.Jackson@cdph.ca.gov> on Tue, 22 Jan 2008 17:58:44 -0800 -----

To: "Ryan Miya" <RMiya@dtsc.ca.gov>

cc: "Dement, Deirdre (CDPH-DDWEM)" <Deirdre.Dement@cdph.ca.gov>, "Leinwander, Penny (CDPH-EMB)" <Penny.Leinwander@cdph.ca.gov>, "Pilorin, Ronald (CDPH-DDWEM)" <Ronald.Pilorin@cdph.ca.gov>, "Daniel Murphy" <DMurphy1@dtsc.ca.gov>, "Henry Wong" <HWong@dtsc.ca.gov>, "Tony Landis " <TLandis@dtsc.ca.gov>, "Kohli, Vandana (CDPH-PS-DDWEM)" <Vandana.Kohli@cdph.ca.gov>

Subject: RE: Request for CDPH position regarding residential re-occupancyat Naval Station Treasure Island (NSTI)

Ryan:

Hopefully, this response covers the items in your e-mail below:

It is our understanding that the re-occupancy of the buildings in question is being handled via a lease between the Navy and City of San Francisco or their designees and that **the property will remain under federal jurisdiction until the CERCLA process or other documentation regarding transfer of the property is completed. With the property remaining under federal the U.S. Nuclear Regulatory Commission and/ or the U.S. Environmental Protection Agency are the agencies with jurisdiction at this time over that site with respect to radioactive materials.** At other DOD sites, lease decisions have not been reviewed by CPH.

CDPH has not yet been provided with the non-time critical removal action (NTCRA) reports for this site.
CDPH will review CERCLA documents that become available under our agreement with DTSC when those documents are published in the future. To date, we have seen no proposed plan or draft record of decision documents on this site and the CERCLA documents covering the history of the site have not been updated to cover the radioactive materials found at the site. In addition, to the best of our knowledge, there has not been a chemical risk assessment documented for the chemical contamination that may be associated with the radioactive contamination. The review and CDPH opinion requested by DTSC appears to be premature under these circumstances. Therefore, there is not a reason for CDPH to become involved at this time or until final reports on the NTCRA are available.

We can make some specific responses to technical questions from the email you sent this morning which stated:

"DTSC is relying on CDPH to provide vital technical advice to determine [1] if the gamma surveys and radon measurements are reliable indicators of real exposure, [2] the risk associated with exposure based on those measurements (assuming they are reliable and consistent with the estimated dose in the model), and [3] the State of California's position regarding re-occupancy of residences at Site 12. If the radon and gamma survey results indicate no detectable Ra-226 or gamma sources exist in the unoccupied units (subsequently validating the conservative human receptor dose estimates), would CDPH support residential re-occupancy? In other words, does an estimated incremental exposure dose of 20 mrem/year pose an unacceptable risk to residential occupants?
If the CDPH would not recommend residential re-occupancy at this time due to unacceptable exposures as measured by the methods employed here, what activities would you recommend that could be implemented in a timely manner to help support re-occupancy?"

Responses:

[1]The gamma surveys and radon measurements will probably be reliable indicators of exposure where and when they are made, depending in part on instrument or analytical method calibration data not yet seen. However, radon emanation and buildup in structures depends on many factors including seasonal climate variations and building use parameters. Therefore, to reliably indicate radon exposure during use, radon detectors would probably need to be present when the buildings were occupied.

[2]The risk from exposure depends on use of the buildings and climate factors as well as the actual number of sources that might be located under the buildings. The risk and dose modeling done to date made assumptions such as one, two or three sources under a building based on the numbers of sources found in soil surrounding the structures. The risk to occupants in a building will depend on how many sources

are actually present, various soil and climate parameters during occupancy and occupant specific building use parameters. The estimated incremental dose stated in your e-mail as 20 mrem/year probably approaches or exceeds 10-4 risk and it obviously does not include any risk from chemical contaminants. More detailed evaluation of risk will presumably be part of the upcoming CERCLA documents that are yet to be provided relative to this site.

[3]Radon and gamma survey results will not necessarily indicate or determine whether or not radium sources exist under potentially occupied units because the gamma surveys will only see sources in the top several inches of soil (depending on source activity and soil density) and the radon measurements may or may not detect radium contamination or sources depending on air movement and other factors as noted above. Since the conceptual model for the site, based on the non time critical removal action (NTCRA) data and the summary provided by DTSC, appears to be that small discrete Ra-226 sources may be present under residential buildings, it also appears unlikely that representative sampling and analysis of soil collected from under the buildings is feasible or would result in a clear determination that there are not small discrete sources or related contamination present in the soil.

Therefore, the decision by the Navy to lease the buildings to the City of San Francisco or their designees is a value judgment and risk evaluation that they may make considering the factors and uncertainty noted above. If they decide to re-occupy the buildings, it is suggested that they consider whether or not radon monitoring during occupancy will provide useful information. Our position is that this lease decision is one that should be made by the Navy and the Federal regulators, who have jurisdiction over radioactive materials at Treasure Island Site 12 at this time.

As a point of information, to the best of my knowledge, CDPH has not released or concurred on unrestricted release of any residential buildings sitting over discrete radioactive sources nor has CDPH concurred on any institutional controls that would allow release of this type of site via a FOST.

Two workable options with respect to early transfer of the site that came to mind are: (1) complete remediation of soil, including soil currently under buildings, prior to early transfer or (2) the Navy retains the Site 12 property thought to have remaining radionuclides present and that property is removed from or not included in any early transfer process parcel.

-----Original Message-----
From: Ryan Miya [mailto:RMiya@dtsc.ca.gov]
Sent: Tuesday, January 22, 2008 8:45 AM
To: Jackson, Kurt (CDPH-DDWEM)
Cc: Dement, Deirdre (CDPH-DDWEM); Leinwander, Penny (CDPH-EMB); Pilorin, Ronald (CDPH-DDWEM); Daniel Murphy; Henry Wong; Tony Landis
Subject: Request for CDPH position regarding residential re-occupancyat Naval Station Treasure Island (NSTI)

Dear Kurt,
The California Department of Public Health (CDPH) is and will continue to be an essential partner with us at NSTI. Your assistance with regards to potential radiological issues is greatly appreciated.

Discrete radium-226 (Ra-226) sources have been discovered at Installation Restoration Site 12, the Treasure Island Housing Area, Former Naval Station Treasure Island, San Francisco, California (“Site 12”). The Navy is in the process of conducting a non-time critical-removal action within three solid waste disposal areas (SWDA) (1207/1209, 1231/1233, and A&B) of Site 12. The radiological anomalies originate from decorative buttons and deck markers containing Ra-226 and have been encountered in soils from 0-4 feet below land surface adjacent to buildings within the three SWDAs. As a result, the RESRAD-BUILD code was used to evaluate potential doses to residential occupants resulting from discrete radiological point sources potentially located directly under building foundations. For all scenarios, the dose attributable to unremediated soil beneath the foundations was slightly less than 20 mrem/year, which represents approximately 5 percent of the 360!

mrem/year dose that the average U.S. resident receives from natural and manmade background radiation sources. The analyses demonstrated that there is minimal exposure of residential occupants resulting from any residual radioactivity that might be present under the foundations of the three floor plan styles in the form of discrete point sources. Radon testing and gamma surveys are also being conducted in unoccupied units to validate the dose estimates.

Here is what we know:
Building foundations consisting of at least 4″ of concrete and 4″ of foundation sand physically separates residences from potential discrete Ra-226 sources, # Conservative human receptor dose estimates (that will be validated with the radon testing) calculated that the dose attributable to unremediated soil beneath the foundations is slightly less than 20 mrem/year, # Gamma surveys from 31 unoccupied units are being conducted in an attempt to detect any radiological gamma sources, # Radon testing is being performed in many of the unoccupied units using activated charcoal radon test kits, and # Lease agreement language prohibiting residences from accessing soil beneath the building foundations will be required.

DTSC is relying on CDPH to provide vital technical advice to determine [1] if the gamma surveys and radon measurements are reliable indicators of real exposure, [2] the risk associated with exposure based on those measurements (assuming they are reliable and consistent with the estimated dose in the model), and [3] the State of California’s position regarding re-occupancy of residences at Site 12. If the radon and gamma survey results indicate no detectable Ra-226 or gamma sources exist in the unoccupied units (subsequently validating the conservative human receptor dose estimates), would CDPH support residential re-occupancy? In other words, does an estimated incremental exposure dose of 20 mrem/year pose an unacceptable risk to residential occupants?
If the CDPH would not recommend residential re-occupancy at this time due to unacceptable exposures as measured by the methods employed here, what activities would you recommend that could be implemented in a timely manner to help support re-occupancy?

While we understand that this request is being made outside of the typical CERCLA process, we know that CDPH evaluation of dose-related risk is critical. We want to work collaboratively to address any outstanding radiological issues now instead of a few years from now during drafting of the final Remedial Investigation Report and Remedial Action Plan. Thank you for your timely attention to this matter.
Please call me at 510-540-3775 if you would like to discuss these and any other issues related to NSTI.

Sincerely,
Ryan Miya
, Ph.D.

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